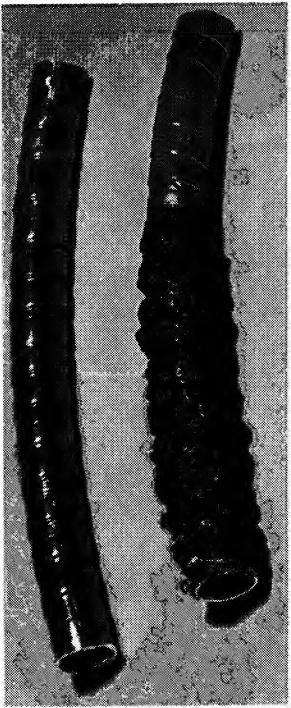


foam that remains provides insulation and forms a char that can re-radiate heat.

Avco Corp. contracted with Ames to test these coatings and foams, was licensed to practice the technology to protect fuel tanks and fuel lines of military aircraft. From there, they were further developed as tapes and coatings to protect fuel hoses on inboard pleasure boats as well as for protecting the interior of fiberglass hulls. As much as 100,000 sq ft of the covering material now are sold monthly to hose manufacturers.

Avco is working this year with the Boating Industry Association and the U.S. Coast Guard to develop adaptations of the coating for fuel tanks and engine-compartment walls.



also are being marketed by Innovative Foods Inc.

in California for campers and as compact emergency

food rations.



Safer pleasure boats

One of the main hazards of gasoline-fueled pleasure boats is fire or explosion. An Ames Research Center coating developed to protect air- and space-craft now has been transferred to reduce this danger.

The Ames coatings contain dispersions of nitrogen-aromatic compounds that decompose and swell the original coating 70 to 200 times its original thickness. The decomposition gases, water, and sulfur dioxide all quench fires. And the low-density

"Flamarest," coating developed by Avco Corp. for NASA to protect fuel lines and tanks, is sprayed on the interior of a polyester boat hull in a commercial application. About 30 mils of the coating prevented structural damage to this hull during a test in which a 13-minute interior gasoline fire was started. An unprotected hull would begin to burn in 30 seconds. Above, the same material applied as tape to wrap fuel lines effectively insulates the bottom hose when charred, while also reducing the spread of flame.

